



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

## THE PSYCHOLOGIC BASIS OF SOCIAL ECONOMICS.

The object of this paper is to emphasize the distinction between that system of political economy which is based upon the actions of the human animal and that system which is based upon the actions of the rational man. The former is the prevailing system of the schools as taught under varying aspects by the Physiocrats, Adam Smith, Ricardo and Malthus. Its underlying principles are set forth in the writings of Herbert Spencer, and constitute the warp of modern individualism. The latter has, from time to time, been dimly foreshadowed by certain writers, but has never taken any scientific form except in a little known work by the present writer.

Auguste Comte recognized the influence of mind in society and placed psychology where it belongs in his hierarchy of the sciences, but he refused to give it the rank of a science distinct from biology, and classed it as a department of that science, calling it "transcendental biology." Nevertheless, in his discussions he gave considerable weight to it, laying stress on the elements of prevision and the control of social phenomena. Spencer, on the contrary, while he treated psychology at length, and assigned it the same position that Comte did, failed to make it the basis of either his sociology or his ethics, both of which, in his system, rest directly upon biology. His psychology, therefore, which, indeed, was written before his biology and largely from the standpoint of metaphysics, stands isolated and useless in his system of synthetic philosophy.

The question is whether the phenomena of social, political and industrial life rest primarily upon or grow chiefly out of the facts and laws of biology or those of psychology. It became early fashionable in the name of science to treat

the uniformity and invariability of natural phenomena displayed in the astronomical and physical world as extending also to animal life, including the operations of economic forces in society. The correctness of this view, considered in the abstract, cannot be questioned, but the economists of that time did not sufficiently understand the nature of such complicated phenomena to make them the basis of a political or industrial science. The time has scarcely come as yet when we can do more than carefully feel our way along this obscure path, but the flood of light which modern science since Darwin, has shed upon the whole domain of biology has not only pointed out the erroneous character of the prevailing mode of reasoning, but has shown at least one, and this the most fundamental source of the error which pervades it. This consists in practically ignoring the existence of a rational faculty in man, which, while it does not render his actions any less subject to true natural laws, so enormously complicates them that they can no longer be brought within the simple formulas that suffice in the calculus of mere animal motives.

While the subject, as thus outlined, is primarily a psychologic one, viz.: that of determining the true rôle that mind has played in the industrial history of the race, the question at issue is essentially an economic one. There are two distinct kinds of economics, biological economics and psychological economics—the economics of life and the economics of mind. That is to say, there are two kinds of economy which it is of the first importance sharply to contrast, the economy that prevails in the animal world, in the domain of life, in organic nature generally, and the economy that prevails in the human sphere, in the realm of mind, in the domain of reason.

Every one is now familiar with the general nature of animal economics. It is the survival of the fittest in the struggle for existence. It is the mere physics of life. Just as in the physical world and the great clash of mechanical forces the superior overcome the inferior, and what we see is the result-

ant product of the struggle, so in the great struggle of life the forms that exist are such and only such as were able to survive the ordeal. But in biology the forces are the various tendencies to grow and develop, including animal appetites, wants and desires. These are ever seeking satisfaction, and only their relative feebleness can prevent them from attaining it.

It was formerly supposed that organic nature was economical of its energies. The facts early observed that every organ is adapted to some function, and that every creature is fitted for the place it inhabits and the life it leads, were supposed to indicate a state of perfect harmony in the entire machinery of nature involving the maximum economy. Such misinterpretations were widely inculcated by optimistic writers and came at length to permeate the thought of mankind. The political economists seized upon them and made them the basis of their systems and even the great philosophers were and continue to be affected by them. Still, nothing is now better known than that the great biologic law, instead of being economical, is extremely wasteful of energy. It is indeed true that everything that is made by nature is adapted to some function or use. This follows from the genetic method of evolution. Everything that exists is pushed into existence by a *vis a tergo*. Nature only works through efficient causes. The universal life force is perpetually creating new organs and new forms, and these must be adapted to their environment, otherwise they cannot even be brought into being. But this adaptation need only reach the minimum stage. If it is sufficient to insure continuance the end is attained, though higher degrees are always being aimed at. The means, however, through which the world is kept peopled with life are far from being the most economical conceivable. They often seem to be the least economical conceivable. They are just such as all the circumstances of each case combine to produce. The cost of accomplishing a given end is wholly immaterial from a purely biological standpoint. The extravagance of nature has long been perceived

even by political economists, but they have failed to see that its admission was fatal to their physiocracy. Malthus showed that but for premature deaths population would increase beyond all bounds, and he also foreshadowed Darwin's law of natural selection by proving that this mortality was really caused by competition and the struggle for existence. We now know that in the animal and vegetable world but for this wholesale destruction of those that have been born any one species would soon overrun the earth. The cost of bringing forth one of the unfortunate beings that are destined to perish at some early period in its history is as great as that of bringing forth one that is to reach maturity and contribute to the perpetuation of the species. Consider then the enormous waste involved in this method over a method which should only bring forth the number necessary to maintain the species at its maximum or desired limit, and should preserve all that came into being until they had accomplished their mission. In oviparous creatures the destruction begins with the eggs, and to meet this, these are often produced in prodigious numbers. The sturgeon is not an abundant fish and yet the female spawns a hundred thousand ova. If all these could live, one pair would stock all the rivers of America. The number of eggs spawned by a single eel sounds too fabulous to be believed, while in the lower invertebrate world the figures grow still more astounding, as, for example, that a tape-worm should possess a billion ova. In the vegetable kingdom we encounter the same class of facts. Burst a puff-ball and the air is filled with smoke, but each element of that cloud consists of a minute spore ready to germinate if by the rarest chance it shall find a suitable habitat. Some one has been to the trouble to determine the number of spores yielded by a plant of the common mold, and reached the incredible figures of three billions, two hundred millions. But even among higher plants the same prodigality is seen. A large chestnut tree in June probably contains a ton of pollen and many pines are equally laden with it, destined to be blown by the winds and floated hundreds of miles in the

upper atmosphere. There are also many plants, like the orchid and the broomrape, which bear myriads of minute seeds, not one in many thousand of which ever has an opportunity to germinate. These are only a few examples. Everywhere in nature the vital energy is squandered in the most prodigal manner. The amount expended on any one species would, if economized, carry on half the activity of the animal or vegetable world.

No one, so far as I am aware, has attempted to formulate the true law of biologic economics. Much has been said of the law of parsimony, which is only a very subordinate one, sometimes called into exercise, but of the great law of prodigality, which is universal, no adequate definition has as yet been offered. As the law of life in organic nature does not essentially differ from the law of force in inorganic nature, it may, for the sake of brevity, be designated as *the law of nature*, with which it is important to contrast the psychologic method or *the law of mind*.

The complete law of nature is capable of being divided into two parts or members. We have seen that it is always directed toward some useful end, and that from its very nature as a genetic process it is incapable of producing any necessarily useless thing. Its products must, therefore, all possess a possible or *potential* value. This part of the law may, therefore, be expressed by the formula that *every creation of organic nature has within it the possibility of success*. Thus far the biologic law is economical. But, as we have seen, only the minutest fraction of that which is created becomes an *actual* success. The second member of the definition must therefore be framed to express this truth. The principle that underlies it may be called *the necessity for certainty*, or *the paramount importance of certainty*. It might also be called *the multiplication of chances*. There seems to be no limit in nature to the degree of energy that may be put forth in the direction of securing certainty. The chances of survival will be multiplied a thousand times in order that certainty may be made a thousand times certain. The

second member of the law, therefore, is that *in order to secure certainty the chances may be indefinitely multiplied*. The entire law may then be thus formulated: *All energy expended by organic nature results in potential utility, and actual utility is secured through the multiplication of efforts*.

The first member of this law may be characterized by the term *practical*. The second member may in like manner be called *prodigal*. Nature is, therefore, at once the most practical and the most prodigal of all economists: practical in that she never makes anything which has not the elements of utility, prodigal in that she spares no expense in accomplishing even the smallest results. Again, nature may be said to be engaged in creating every conceivable form. Every one is familiar with the wonderful variety in the actual forms of vegetable and animal life. But these, innumerable as they are, only represent nature's successes. Intermediate between them there must be imagined an infinite number of failures—conceivable forms in the production of which the organic energy has expended itself in vain—a vastly greater expenditure than that required to create all that exists. Moreover, among the successful forms there are all degrees of success. There are the vigorous and robust forms, rejoicing in a full measure of vitality and marching forward toward the possession of the earth. Then there are the weak and languishing forms, which the former class is gradually crowding out of existence. Between these there are all the intermediate grades. But the successful are only temporarily so. Like human empires they have their rise and fall, and the path of natural history, like that of human history, is strewn with the remains of fallen dynasties and the ruins of extinct races.

If the expenditure of energy be designated the *cost*, then it may be said to be a characteristic of the law of nature to exaggerate the cost of any given result. The most economical way in which a river can flow is in a straight line from its source to its mouth. But even if one were to begin in this way it would, as a result of this principle, soon

become crooked and then more and more crooked, until at length the actual distance traversed by every drop of water would be at least double that of a straight line. This physical law, which has been called the rhythm of motion, is carried into the organic world. The tendency is everywhere to exaggerate the irregularities of normal development. This goes on until it frequently results in abnormalities so great that they bring about their own extinction. Such were doubtless the strange dragons that, as paleontology tells us, inhabited the world during a certain geological period, while the more recent mastodon and mammoth and those wingless birds of the Southern Hemisphere, furnish other illustrations. In the vegetable kingdom the coal flora is full of examples. Many living plants, either through parasitism, as the *Rafflesia*, which consists almost exclusively of a gigantic flower, or through extreme specialization, as in the orchids and yuccas, many of which are dependent upon a single species of insect which alone has organs adapted to fertilize their flowers, further exemplify this law. Such monstrosities inevitably perish with the slightest alteration in their material surroundings. The progress of organic development has thus been to a large extent the successive creation of types that have contained within themselves the elements of their own extinction. New ones, of course, have succeeded them, adapted for the time being to their environment, but destined in turn to outgrow their conditions and perish from the same cause.

In this sketch of natural or biologic economics its genetic character has been thus far chiefly left out of view, in virtue of which, effects are always just equal to causes and never greater. The organic force is applied directly to the object to be transformed, and the forms to be created are molded into the required shape by an infinite number of minute impacts, the sum of which is represented by the transformation accomplished. No advantage is taken of any mechanical principle whereby the effect is made to exceed the energy expended. Natural selection has, indeed, evolved structures that embody



to some extent such principles. Sharp teeth and claws like edged tools represent the inclined plane, and it may sometimes be carried as far as to imitate the screw, as in the appliances which some seeds possess for boring spirally into the earth. Again, there is no doubt that the manner in which muscles are attached often affords a true leverage and greatly increases the effectiveness of muscular action. But aside from these curious cases in which natural selection seems to imitate rational design, effect throughout organic and inorganic nature is exactly equal to cause, and the result produced by living beings is proportioned to the effort put forth. No animal, for example, is ever seen to make use of any external appliance, not even to the extent of wielding a weapon, such as a club or a stone, which is not a part of its own organic structure. The beaver, indeed, builds dams by felling trees, but its tools are its teeth and no further advantage is taken than that which results from their sharpness and the way the muscles are attached to the jaws. All the warfare of animals is waged with tooth and nail, with horn and hoof, with beak and spur, and fang and sting—always with organic, never with mechanical weapons. And whatever work is done by animals is always done with tools that nature has provided through a long course of development, none of which takes advantage of any principle of physics further than as already stated.

Over against this method of nature or biological economy, let us now set the method of rational man, or psychological economy. The most patent distinction which at once strikes the mind is that the latter is *teleological* instead of genetic, and deals with final instead of efficient causes. This means that while organic forms are merely pushed into existence by the pelting of atoms from behind, and thus become fortuitous or literally chance products, human creations are conceived in advance by the rational and foreseeing mind, designed with skill for definite ends and wrought with the aid of a variety of mechanical principles by which the energy expended is out of all proportion to,

and always less than, the result accomplished. It is in rational man, therefore, that the first application of anything worthy of the name of economy is made. Nature has no economy. Only through foresight and design can anything be done economically. If nature produces nothing that may not possibly prove useful, man produces nothing that will not probably be useful. But nature creates many thousand actual failures to one actual success, while man, though he often fails through ignorance, is ever approaching a stage at which every effort shall succeed. His rivers, (canals, mill-races, irrigation trenches, etc.,) are straight, or as nearly so as true economy of construction requires, and Professor Schiaparelli has based his belief that the planet Mars is inhabited by rational beings, upon the supposed discovery of great water-ways passing across its disk in right lines.

Nature's way of sowing seed is to leave it to the wind, the water, the birds and animals. The greater part falls in a mass close to the parent plant, and is shaded out or crowded to death by its own abundance. Only the few seeds that chance to be transported by one agency or another to some favorable spot, and have the further good fortune to be covered up can sprout. The most of these even never attain maturity, and only the most highly favored live to continue the race. To meet this enormous waste, correspondingly enormous quantities of seed are produced. Such is nature's economy. How different that of a rational being! He prepares the ground, clearing it of vegetable competitors, then he carefully plants the seeds at the proper intervals so that they shall not choke one another, and after they have sprouted he keeps off their enemies, whether vegetable or animal, supplies water if needed, even supplies the lacking chemical constituents of the soil if he knows what they are, and thus secures, as nearly as possible, the vigorous growth and sure fruition of every seed planted. Such is the economy of mind.

A close analysis shows that the fundamental distinction

between the animal and the human method is that *the environment transforms the animal, while man transforms the environment*. This proposition holds literally almost without exception from whatever standpoint it be contemplated. It is, indeed, the full expression of the fact above stated that the tools of animals are organic while those of man are mechanical. But if we contrast these two methods from our present standpoint, which is that of economics, we see at once the immense superiority of the human over the animal method. First consider the economy of time. It has taken a much longer time to develop any one of the organic appliances of animals, whether for war or industry, than is represented by the entire period during which man has possessed any arts, even the simplest. Look next at the matter of efficiency. Not one of these organic appliances has sufficed to enable the species possessing it to migrate far from the region to which it was originally adapted. Man, on the other hand, without acquiring any new organic adaptations, has, by the invention of tools, by providing himself clothing and shelter, by artificial devices for capturing prey, and by other ways of transforming his environment, placed himself in position to occupy the whole earth from the Equator to the Arctic Circle, and to become the only animal that is not restricted in its habitat.

The sum total of human arts constitutes man's material civilization, and it is this that chiefly distinguishes him from the rest of nature. But the arts are the exclusive product of mind. They are the means through which intelligence utilizes the materials and forces of nature. And as all economics rests primarily on production it seems to follow that a science of economics must have a psychological basis. In fact, the economics of mind and the economics of life are not merely different, but the direct opposites of each other. The psychologic law strives to reverse the biologic law. The biologic law is that of the survival of structures best adapted to the environment. Those structures that yield most readily to changes in the environment persist.

It has therefore been aptly called the "survival of the plastic." The environment never changes to conform to the structures, but always the reverse, and the only organic progress possible is that which accrues through improvements in structure tending to enable organic beings to cope with sterner and ever harder conditions. In any and every case it is the environment that works the changes and the organism that undergoes them.

But the most important factor in the environment of any species is its organic environment. The hardest pressure that is brought to bear upon it comes from other living things in the midst of which it lives. Any slight advantage which one species may gain from a favorable change of structure causes it to multiply and expand, and unless strenuously resisted, ultimately to acquire a complete monopoly of all things that are needed for its support. Any other species that consumes the same elements must, unless equally vigorous, soon be crowded out. This is the true meaning of the survival of the fittest. It is essentially a process of *competition*. The economics of nature consist, therefore, essentially in the operation of the law of competition in its purest form. The prevailing idea, however, that it is the fittest possible that survive in this struggle is wholly false. The effect of competition is to prevent any form from attaining its maximum development, and to maintain a certain comparatively low level for all forms that succeed in surviving. This is made clear by the fact that wherever competition is wholly removed, as through the agency of man in the interest of any one form, that form immediately begins to make great strides and soon outstrips all those that depend upon competition. Such has been the case with all the cereals and fruit trees; it is the case with domestic cattle and sheep, with horses, dogs and all the forms of life that man has excepted from the biologic law and subjected to the law of mind, and both the agricultural and the pastoral stages of society rest upon the successful resistance which rational man has offered to the law of nature in these departments. So that

we have now to add to the waste of competition its influence in preventing the really fittest from surviving.

One important fact has thus far been kept out of view for final treatment in this place. Man, it is true, is a rational being, but he is also still an animal. Notwithstanding the important conquests over nature that have been recounted, he is still very far from being master of the field. The difficulty is that mind itself was developed under the influence of the purely egoistic law. That extraordinary brain development, which so exclusively characterizes man, was acquired through the primary principle of advantage. Brain does not differ in this respect from horns or teeth or claws. In the great struggle which the human animal went through to gain his supremacy, it was brain that finally enabled him to succeed, and under the biologic law of selection, where superior sagacity meant fitness to survive, the human brain was gradually built up, cell upon cell, until the fully developed hemispheres were literally laid over the primary ganglia and the cranial walls enlarged to receive them. The brain of man was thus originally an engine of competition. It was a mere servant of the will. It was only in virtue of its peculiar character, by which it was capable of perceiving, that the direct animal method was not the most successful one, even in the bare struggle for existence, that it so early began, in the interest of pure egoism, to antagonize that method and to adopt the opposite indirect method of design, foresight, calculation and co-operation.

The law of mind as it operates in society as an aid to competition and in the interest of the individual is essentially immoral. It rests primarily on the principle of deception. It is an extension to other human beings of the method applied to the animal world by which the latter was subjected to man. This method was that of the ambush and the snare. Its ruling principle was cunning. Its object was to deceive, circumvent, ensnare and capture. Low animal cunning was succeeded by more refined kinds of cunning. The most important of these go by the names business

shrewdness, strategy and diplomacy, none of which differ from ordinary cunning in anything but the degree of adroitness by which the victim is outwitted. In this way social life is completely honeycombed with deception.

The competition which we see in the social and industrial world—competition aided and modified by reason and intelligence—while it does not differ in either its principle or its purpose from the competition among animals and plants, differs considerably in its methods and in its effects. We see in it the same soulless struggle, the same intense egoism, the same tendency to exaggerate existing inequalities, the same sacrifice of the weaker to the stronger, and the same rage of the latter to possess and monopolize the earth. But, in addition to all this, the opposite principle is also in active operation. This is the law of mind making for a true economy of energy. This economy, however, is a purely individual economy and not a social or political economy. That is, it only benefits the individual, not society nor the state. The effort in each case is solely to benefit self. No account is taken of the benefit or injury of others. Usually the individual knows that it will injure others, and, therefore, in order to prevent them from checking him he resorts to one or the other of the methods of deception above enumerated. But oftentimes no thought is given to its effect on society, the state or other individuals.

It has been so strongly maintained that competition results in a real economy that it is worth while to consider this for a moment. The prevailing impression is that if permitted to operate freely it will necessarily keep down prices. There is no greater mistake made by economists. It tends to raise prices to their highest limit. It does this by the waste it occasions, and the price must be made to cover this waste. In the retail trade of all kinds of commodities the waste is enormous. The number engaged in it is many times greater than is necessary. This is because society has put a stigma upon productive labor, and trade is one of the principal ways of living by one's wits. Each seller must devise some

means to induce buyers to buy of him instead of his rivals. One of the principal ways of doing this is that of making his goods known to those likely to want them. From pure inertia they will buy what is brought to them before they will go after it, or they will go to a place they know of rather than hunt another. Hence, every possible means is resorted to by each dealer to advertise his business. Newspaper advertising is the most familiar way, but it is by no means the only one. Costly as it is, it probably costs less than other modes. Among these, display takes a high rank—large French glass show windows, illuminated at night, even after the hour of closing, with gas or electric lights. Add to this the necessity for locating on principal streets and paying high rentals. Posters and running agents, delivery wagons emblazoned with great letters, “opening” invitations sent to thousands, and a variety of other devices, all very expensive, are well known to all. For houses that can afford it all this is supplemented by the traveling salesman or drummer whose ubiquitous presence greets us on every railroad car and at every country hotel. Think of the enormous expense involved in this! There is a latent impression that it is in some way necessary. Yet such is not the case. All these varied modes of making known particular firms and particular goods are wholly unnecessary to society at large. Only so much is wanted and only so much will be bought. If it tends to cause more to be bought than is wanted it does harm. It is only a supposed necessity to each dealer to cause his goods to be bought instead of those of another dealer. But the consumer must pay for all this expensive rivalry. Pass by any first-class restaurant, even at the customary hour for meals, and you will see perhaps two or three persons eating in a hall that would comfortably seat fifty, in rear of which there will be ten to twenty waiters in dress coats and white gloves waiting for another guest to drop in, if perchance one should. No wonder that at such a place one must pay a dollar for a beefsteak that costs fifteen or twenty cents in the market. It is because

the business is so greatly overdone, each competing to attract more than the others. It is the same with the drug business, the cigar business, the confectionery business and a great number of other businesses.

All these are illustrations of competition under the law of mind. They are the devices of cunning persons to live without work or by some agreeable form of work, and society is regularly called upon to support them by paying in the added prices of all commodities all that the business will bear. This quality of business shrewdness, the modified form of animal cunning, resting primarily upon the principle of deception, is manifest in all forms of advertising. The chief object of an advertisement is to deceive the public and cause the belief that things are better or cheaper than they are. So well is this understood that there is no law to punish the most flagrant falsehood expressed in the form of an advertisement, and if the dupes and victims of this form of lying remonstrate, that great principle of the common law of England, *caveat emptor*, is laughingly brought forward as the all-sufficient answer.

These illustrations are drawn from one of the few departments in which permanent or at all prolonged competition is possible in society. In nearly all other departments the effect of intelligence is very different. It is mind alone that perceives that competition is wasteful, and, therefore, in the interest of the very success that competition seeks, it proceeds to antagonize it and to substitute art, science, and co-operation. By the aid of these, the success of those who use them is increased many hundred fold. Competition in society, therefore, tends to defeat itself. It cannot endure. It is at best only a transition stage. On the one hand, the competition between individuals soon takes the form of competition between machines. On the other hand it takes the form of competition between corporations. The former tendency is temporarily injurious but permanently beneficial. The latter is permanently injurious and becomes a serious menace to society. Still, it is not an unmixed evil, since it prevents the



waste of competition. Even the retail industries above referred to are coming within this law. The small houses are being swallowed up by large ones and great universal stores are growing up in all large cities. They result in monopoly but they do not increase prices, and the quality of the goods sold is far more reliable.

The social phenomenon which conforms most nearly to the pattern set in the animal world, and which is most under the influence of the law of nature and least under that of the law of mind, is human labor. Wholly unskilled labor has rarely gone beyond the stage of pure competition. In the olden time skilled labor made a step forward in the formation of guilds, but the era of machinery swept these away. At the time when the founders of the present system of political economy were writing, labor of nearly every kind was almost exclusively competitive. It is only within a few decades that it has begun to fall under the influence of intelligence, and to employ the simplest of all rational devices, that of co-operation. Capital, on the other hand, being naturally in the hands of the most sagacious members of society, has always combined and co-operated and used all the other arts of overcoming competition. The chief difference between the employers and the employed, until recently, has been that the former have used the rational method while the latter have used the natural method. But such is the power of the rational method and its superiority over the method of nature that competing labor stood no chance in the struggle with combining capital, and it was possible, to a great extent, to enforce the iron law of wages as formulated by Ricardo. And when, in recent times, labor at last began in a small way to call to its aid the psychologic economy of co-operation the step was so unexpected and seemed so strange that it was looked upon as a crime against society, and many still so regard it. Indeed, all the laws of modern nations are framed on the assumption that capital naturally combines while labor naturally competes, and attempts on the part of labor to combine against capital are usually suppressed by the

armed force of the state, while capital is protected by the military and civil authority of the state against such assumed unlawful attempts. The enormous odds against which labor struggles in its efforts to adopt and apply the economics of mind will greatly retard the progress of industrial reform, which aims to place labor on an equal footing with capital in this respect.

The evil that results from the competition of corporations lies in the fact that, as in most competition among rational beings, it is only a brief transition stage to be quickly followed by further combination. Just as competition among individuals results in corporations, so competition between corporations results in combinations of corporations. A common form of these compound corporations is that which is known as a trust. This process of compound co-operation does not stop until all engaged in a given industry are embraced in a single combination and the whole product of that industry is controlled by it. This gives it absolute control over the price of the commodity produced, limited only by the maximum that can be charged without diminishing the profits. Thus, for example, all the petroleum produced by a country may fall under the control of a single trust, and in order to secure for the members of that trust the maximum return for the petroleum, its price will be placed at the highest figure that consumers of petroleum will pay rather than return to candles or resort to gas or electricity. All monopolies rest on the same principle, and they are as common in the industries of transportation and exchange as in those of production. The railroad, telegraph and express systems fully illustrate the law, as does also the mercantile business of every country, in all of which competition is short, heated and fitful, and the result is always the same—the swallowing up the small industries by the great ones in ever-widening cycles.

Thus it comes about that nearly everywhere in human society the law of mind profoundly modifies the phenomena of industrial life and produces an entirely different class of

results from what would be produced by the operation of the unimpeded law of natural competition. Whether the competition be continued for a time, or whether it be converted into a competition of corporations, or whether, finally, it resolve itself into complete monopoly, in any and all cases an enormous artificial difference will be produced between the cost of production and the price to the consumer, and the latter will be pushed up to the maximum limit attainable without affecting profits. In the first case this artificial difference is mostly wasted in aggressive competition, its only benefit to any one being that of doubling or trebling the number of persons who are enabled to live without productive labor. In the other cases, and especially the last, this difference goes to enrich the managers of trusts and to multiply millionaires.

All this is so widely different from what we see everywhere in nature below the level of man's rational faculty that it requires the application of an entirely different set of principles from those which can be applied to irrational life. There competition is pure. It continues as long as the weaker can survive it, and when these at last go to the wall and the better adapted structures survive and triumph, it is the triumph of physical superiority, and the strong and the robust alone are left to replenish the earth. But when mind enters into the contest all genuine competition is crushed out, and while it is still, in a certain sense, the strong that succeed, it is strength which comes from superior cunning, necessarily coupled with stunted moral qualities, intense egoism, and undeveloped sympathies, and always aided more or less by the mere accident of position. In no proper sense can it be said that this class is the fittest to survive in society.

Free competition as it exists in nature would be preferable to the present industrial state, if the tendencies of the latter are to be indefinitely exaggerated, and although it is not the boon that many suppose, it is still one of the great desiderata for which society should strive. How can it be secured? Herein lies a great social paradox. Competition

is growing more and more feeble and ephemeral; combination is growing more and more powerful and permanent. And this is the result of the most complete *laissez faire* policy. The paradox, therefore, is that *free competition can only be secured through regulation*. The co-operative tendencies of the rule of mind which destroy competition can only be overcome by that higher form of co-operation which is able to stay the lower form and set the forces of nature free once more.

As was stated at the outset, the object of this paper is to show that any system of economics dealing with rational man must rest upon a psychologic and not upon a biologic basis. It may seem strange, in the light of all that has been said, that there should be any need of calling attention to this truth. And so it would be were it, not that, in full view of all these facts, the only system of social economics that we possess, the only social philosophy, other than the one early referred to, that has been promulgated, completely ignores them and treats the human animal only as an animal. Not the economic writers alone, but the philosophers as well, persistently cling to the law of nature and ignore the law of mind.

The old biological economics, culminating in the law of Malthus, has broken down. Its leading tenets have proved false in practice, and in many cases truth demands that the propositions be reversed.

Darwin modestly confesses that he derived his original conception of natural selection from the reading of Malthus on population. But he did not perhaps himself perceive that in applying the law of Malthus to the animal world he was introducing it into the only field in which it holds true. Yet such is the case, and for the reason that has already been given, viz.: that the advent with man of the thinking, knowing, foreseeing, calculating, designing, inventing and constructing faculty, which is wanting in lower creatures, repealed the biologic law or law of nature and enacted in its stead the psychologic law—the law of mind.

LESTER F. WARD.

*Washington, D.C.*